

Bulletin

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Governing Council

makes possibility of job cuts official

As a result of an amendment to the 1978-79 *Budget Guidelines* endorsed by the Governing Council at its November 17 meeting, the possibility is now officially on record that both academic and non-academic positions might have to be vacated in order to cut the University's budget by the \$5 million necessary to meet salary and utility cost increases.

The *Guidelines*, a planning and policy report prepared for the Budget Committee by the office of the Vice-President, Research and Planning, propose budget cuts of three percent for academic departments and five percent for all others, resulting in an overall reduction of more than four percent.

"Since the majority of the University budget is salaries, staff complement is likely to be directly affected by this decision," the report stated prior to amendment.

Non-academic staff the target

James Kraemer, an administrative staff member of council and co-ordinator of academic services at the Faculty of Medicine, said that it was apparent that "staff complement" could be taken to read "non-academic staff complement" since tenure stream faculty members cannot be dismissed for fiscal reasons and, particularly, since a recent memorandum from senior administrators Chant and Iacobucci advises division heads on the "consolidation and elimination of non-academic staff".

He was surprised, Kraemer said, that no similar policy existed for academic staff. He proposed an amendment that would have the sentence in question read: "Since the majority of the University budget is salaries, the complement of academic and non-academic staff may have to be reduced."

President John Evans commented that the amendment would not change the sense of the academic guidelines presently in force and pointed out that for the last three years the academic divisions had

been told not to make any further appointments in the tenure stream. As a result of the unstable financial situation, a significant number of specific term appointments will have to be allowed to lapse, he said.

The memorandum concerning non-academic staff "was a reminder that the divisions had a real responsibility for their staff members". There is a striking difference between the normal turnover rates of academic and non-academic staff that makes the relocation of non-academic staff members within the University much easier to accomplish, the President said.

In response to Dr. Evans' statement about allowing term appointments to lapse, Kraemer suggested that "terminating a one-year academic appointment is considerably different in kind to terminating what is, in effect, the permanent appointment of a non-academic employee".

Provost Donald Chant informed the council that another document had in fact gone out informing division heads of the University's policy on limited term academic appointments.

When student member Michael Treacy commented that "much money could be freed if some academics at this University were released for cause," Dean Bernard Etkin responded that in the case of a three percent budget cut in a faculty such as Engineering, the reduction in the academic salary component is much larger than in other areas.

Dr. Evans expressed his disapproval of Treacy's approach and noted that the University has "avoided precipitous actions leading to the dismissal of both categories of staff."

"We have acted in a responsible manner," he said.

After a short discussion of the fact that, at present, no policy exists at U of T for the discontinuation of tenured profes-



Greg Malszecki, a student at the Centre for Medieval Studies, is a specialist in the making of medieval sports equipment. Tennis anyone?

Internal Affairs

discusses future operation
of University Health Service

"The Health Service is one of the jewels of the campus," Vice-President Frank Iacobucci told members of the Internal Affairs Committee at their Nov. 15 meeting. At that time the committee continued its discussion of recommendations contained in a report made by the working group that had been struck to review the University's Health Service.

"The decisions surrounding the Health Service are among the most difficult I have ever had to make," continued Iacobucci. "The service and its respected director, Dr. George Wodehouse, enjoy a national reputation. Its staff members have contributed at personal sacrifice and I have no doubt that the recommendations of administration will have considerable effect on the Health Service and that it will suffer. But I also believe that the recommendations will enable the service to continue, although not with its previous impetus."

The committee accepted the recommendation that the Health Service's existing billing and collection procedures

be tightened up and that overdue bills be collected in the same manner as overdue library fines, "chiefly at the time of re-registration in the following year".

Although a motion was passed that the use of the Health Service be promoted, Dr. Wodehouse pointed out that "it would be difficult to raise expectations we may not be able to meet".

Minor amendments that were passed included a recommendation that the Health Service's medical insurance income budget be no more than \$250,000, and that a report on alternatives to the Infirmary, should it be closed, be forthcoming from the Vice-President Internal Affairs by March 1978.

The committee agreed to accept the recommendation that "on an experimental basis and within present resources, general medical service be offered in the early evening hours". The service would be of particular help to part-time students.

Members agreed to vote on further recommendations at the committee's next meeting on Nov. 22.

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Job Openings

Below is a partial list of job openings at the University. Interested applicants should read the Promotional Opportunity postings on their staff bulletin boards, or telephone the personnel office for further information. The number in brackets following the name of the department in the list indicates the personnel officer responsible. Please call: (1) Sylvia Holland, 978-6470; (2) Penny Tai-Pow, 978-5468; (3) Manfred Wewers, 978-4834; (4) Ann Sarsfield, 978-2112; (5) Beverley Chennell, 978-7308.

- Clerk III** (\$8,180 — 9,620 — 11,070)
Applied Science & Engineering, faculty office (5), Personnel (4), Media Centre (4), Arts & Science (1)
- Clerk Typist III** (\$8,180 — 9,620 — 11,070)
Nursing (4)
- Secretary I** (\$8,180 — 9,620 — 11,070)
International Student Centre (4), Health Administration (4)
- Secretary II** (\$9,000 — 10,590 — 12,180)
New College (2)
- Secretary III** (\$9,900 — 11,650 — 13,400)
Arts & Science, dean's office (1)
- Secretary IV** (\$11,010 — 12,960 — 14,900)
School of Architecture (5)
- Library Technician III** (\$8,180 — 9,620 — 11,070)
Media Centre (4)
- Laboratory Technician II** (\$11,010 — 12,960 — 14,900)
Pharmacology (2)
- Laboratory Technician III** (\$12,860 — 14,310 — 16,450)
Pharmacology (2)
- Graphic Artist II** (\$9,900 — 11,650 — 13,400)
Information Services (1)
- Research Assistant** (\$9,900 — 11,650 — 13,400)
Psychology (1)
- Programmer I** (\$10,460 — 12,310 — 14,160)
Pharmacology (2)
- Programmer II** (\$12,860 — 15,130 — 17,400)
Business Information Systems (5), Student Record Services (1)
- Programmer IV** (\$19,490 — 22,930 — 26,370)
Physics (1)
- Writer** (\$14,900 — 17,630 — 20,270)
Information Services (1)
- Assistant Director** (\$18,470 — 21,730 — 24,990)
Private Funding (1)
- Senior Accountant** (\$21,680 — 25,510 — 29,340)
Comptroller's Office (5)
- Chief Engineer, Central Steam Plant** (\$18,470 — 21,730 — 24,990)
Physical Plant (3)

Resources Subcommittee

Recommendations for the allocation of space in Sandford Fleming were discussed at the Nov. 15 meeting of the Resources Subcommittee, after which the subcommittee voted against the administration's plans for library consolidation and endorsed the proposal favoured by the Faculty of Applied Science and Engineering, and the majority of other divisions involved.

In the recommendation accepted by the subcommittee, Sandford Fleming would house Engineering, Computer Science, and only part of Forestry so that their libraries could also be accommodated along with the science component of the Sci-Med Library. Student Record Services (SRS) would join the Computer Centre (UTCC) in the McLennan Physical Labs, at the expense of space occupied by Physics.

Members voted down the plan which would have seen Engineering, Computer Science and Forestry (except for the Glendon Labs) given space in Sandford Fleming and eight science libraries consolidated in the McLennan Labs — Engineering, Sci-Med, Physics, Chemistry, Computer Science, Forestry, Astronomy and Mathematics. This plan assumed that UTCC would move off the campus and that Physics would gain space when the LINAC lab closes down in 1978. In the shuffle, it was thought that the vacant Forestry Building might be given to Fine Art.

The subcommittee's recommendation carries the proviso that consideration be given to the space problems of Physics and that alternatives be sought for the location of SRS. This recommendation will go to the Planning and Resources Committee for discussion.

Music seeks new dean

The President has appointed a search committee to recommend a dean of the Faculty of Music for a term beginning July 1, 1978. The membership of the committee is:

Vice-Provost R.W. Missen, chairman; Prof. W.F. Blissett, Department of English; Frank A. Daley, director of music, Scarborough Board of Education; Prof. R.A. Falck, Faculty of Music; Dean F.G. Halpenny, Faculty of Library Science; Dean J.M. Ham, School of Graduate Studies; Prof. L.K. Klein, Faculty of Music; Joseph Macerollo, Royal Conservatory of Music; Patricia Magahay, Faculty of Music; James Prosser, Faculty of Music; Prof. Patricia Shand, Faculty of Music; Prof. Pierre Souvairan, Faculty of Music; James Wells, Faculty of Music; Dorothy Robertson, secretary of the committee.

The committee welcomes suggestions of names to be considered. These may be submitted, preferably in writing, to the chairman or any member of the committee.

Bohne head of U of T Press

Harald Bohne has been appointed director of the University of Toronto Press, effective November 17. He has been acting director of the Press since the retirement early this year due to ill health of the previous director, Marsh Jeanneret.

Harald Bohne joined University of Toronto Press in 1954 as assistant to the bookstore manager less than a month after his arrival in Canada from Germany. From 1958 to 1966 he was bookstore manager, during which period he was active in the Canadian Booksellers Association, first as chairman of its College Store Division, then as vice-president and president.

In 1970 he was appointed assistant director of the Press, and in 1975 associate director. Together with H.C. Van Ierssel, financial administrator of the Press, he was commissioned by the Ontario Arts Council to write a manual to assist new publishers; the manual, entitled *Publishing: The Creative Business*, was published in 1974.

In making its recommendation, the search committee, chaired by J.H. Sword, suggested that the position of the director would be strengthened considerably by the early appointment of an associate director, academic, who would have no administrative responsibilities for the operation of the Press but would act as its liaison with the University and the academic community generally, chair the Manuscript Review Committee and participate in building and strengthening the Press's list of scholarly publications.

Business Affairs

wonders who is looking after UTSA in pension and benefits negotiations

At the Business Affairs Committee meeting Nov. 16, members heard that, in addition to the \$4,700,000 required to bring University buildings up to present building code standards, a further \$400,000 "bridge financing" was needed to fund fire safety projects. When asked if this money would be used to update "most serious risk areas", Physical Plant director William Lye explained that the money would be spent on projects "considered to be most appropriate to undertake now". Members agreed to defer further discussion until May, when Lye's report updating the situation is ready.

In response to a question about the University's pension plan, Vice-President Alex Rankin explained to members that there were now three forums for discussion and negotiation of pensions: the Pension Review Committee and the Pension Appeal Committee, set up after the Etkin Report of 1975, and UTFA's committee, set up after the signing of the *Memorandum of Understanding*. "UTFA is now asking us to implement those recommendations contained in the Etkin Report which we haven't yet," Rankin said, "and who can blame them? There is nothing we couldn't do if we had the money."

However, UTFA is interested in the amelioration of benefits for its constituents — the academic staff — a member pointed out. Using the maternity leave issue and the proposed dental plan as examples, he explained how issues could constitute different priorities for each group. In pension and benefits negotiations, who is looking out for UTSA's best interests, he asked. Members agreed that they would like clarification of this matter and Vice-President Rankin was asked to look into it and report back to the committee at its Dec. 21 meeting.

Christmas Flights to Vancouver & Halifax

Toronto/	Vancouver/	Toronto	\$199
Dec. 20	Return	Jan. 03	
Dec. 21	Return	Jan. 05	

Toronto/	Halifax	/ Toronto	\$125
Dec. 19	Return	Jan. 03	

Price does not include Canadian Transportation tax \$8.00. After Oct. 21, 1977, prices of Vancouver flights will be \$219.00. Deposit of \$50.00 required at time of booking and balance payment is due 60 days prior to departure. Although there is no minimum advance booking period, book early to assure yourself a seat and to save money.



Book now through:

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Troubled teens

are given help at this clinic



Parents tend to blame themselves when something goes wrong in the life of their adolescent child — just as they often bask in the reflected glory of an offspring's success, says Dr. David Lloyd, supervising paediatrician in the Teen Clinic at the Hospital for Sick Children.

Dr. Lloyd believes that, for the most part, parents are not to blame when an adolescent has a problem. But he also believes that today's parents are far too lenient. "If parents don't define the rules and have the fortitude to enforce them, they will lose control entirely. Parents don't have to worry about blocking a child's artistic nature. Creativity will not be thwarted by healthy boundaries."

The Teen Clinic, now approaching its tenth year, sees almost 5,000 young people annually. Their ages range from 12 to 18 and at the rate their attendance at the clinic is increasing, Dr. Lloyd estimates that next year the number of consultations will be almost doubled.

Who refers teenagers to the clinic? Sometimes it's a doctor, but more often it's a friend who knows firsthand that the clinic is a place where help can be had for anything from the common cold to problems around sexuality and contraception — problems their parents didn't face at a comparable age.

On the matter of sexuality, Dr. Lloyd contends that there has been no real change in sexuality from the last generation to this one. "It's just that today's kids are more open, more honest and their practices more visible," he says. "Today's adolescent is also more sincere and idealistic in his search for meaning than were previous generations of young people."

Although abortions are not done at the hospital, they are arranged through gynecologists working in the clinic. The girls are counselled before and after they have a therapeutic abortion or give birth to the child. A recent study on girls who chose to raise their children shows that they have many more emotional and physical problems, says Dr. Lloyd. "And of those who have been pregnant once, 90 percent are pregnant again within 18 to 24 months unless contraception is made available to them."

Girls, maturing earlier than boys, tend to seek professional help sooner than their male counterparts. But boys eventually come with their problems, too. "Perhaps because society has a different set of expectations of them," says the doctor, "boys tend to hide their concerns. They will talk about a minor football injury or a recent cold before revealing what is

really bothering them. And it may be anything from acne to impotence to depression. An adolescent's self-image is very fragile and may be devastated by what may seem like trivia to a parent."

Many of the teenagers seen at the clinic suffer from emotional problems associated with ongoing, chronic disability. The teenager who has been injured in a motor vehicle accident (the commonest cause of death in this age group) will become frustrated and unhappy when he finds himself a dependent. The child who is suddenly put to bed with infectious mononucleosis, and whose parents are over-protective, can also develop emotional problems.

Some adolescents, says Dr. Lloyd, will even test the gravity of their disorder by not taking a vital medication: an epileptic will see whether he actually does have a seizure if he stops taking his dilantin; a diabetic will see if he goes into coma if he omits his insulin.

"Every chronic, physical disability has a large emotional component," says the paediatrician. "The majority of emotional upsets are handled by the clinic staff, but where it seems advisable the teenager is referred to a skilled psychiatrist associated with the clinic."

Dr. Lloyd doesn't see any prospect of adolescence becoming any less complex. He describes the phase as being "a fuzzy process", ill-defined by such *rites de passage*, or developmental milestones as the right to vote or the right to drink. He believes that many factors contribute to the current teenage instability: the media, the complexity of career choices, the mobility of the family (the average Canadian family moves four times in its lifetime), and the loss of the extended family with its amiable complement of aunts, uncles, and grandparents to support and relieve both adolescent and parent.

In the face of seemingly overwhelming societal challenges, parents can always go back to one simple guideline, he says. "Treat each child as an individual with needs unique to him. The youngest member of a family often has a difficult time, especially if there is a large age gap between him and the oldest child. Parents think they can apply the same rules they used with the first child. But each child needs different care. Reading all the child care books in the world will not substitute for parents using their common sense to discern their child's needs."

Pictures to touch

are created by blind children with help of Scarborough psychologist

If Scarborough psychologist John Kennedy's theories about the blind and their innate ability to draw and to understand raised, outline drawings — "haptic pictures" — prove to be correct, then it may not be long until Braille texts will carry a new kind of depiction instead of just alphabetical symbols.

It would mean also that the blind school child would be encouraged to try his hand at drawing, and thus be helped to learn more about his world. It might also mean that *Playboy's* recently published Braille edition might one day also carry haptic pictures.

Professor Kennedy is quick to point out that he is not the first researcher to try to develop drawing skills in the blind. But in the past, he says, efforts have ended in frustration and failure.

In his study Kennedy worked with 40 people ranging in age from 12 to 50. Most of them were blind, but a few were partially sighted and some were fully sighted but blindfolded to perform the tests. For the blind, it was their first experience in drawing. All of the participants explored by touch the subject they were going to draw. They then produced raised pictures by drawing with a stylus on a special plastic drawing board.

Kennedy found that the blind were highly motivated, and often so excited about their new-found skill that they

would stay long after class. "All in all, there was very little difference between the art of the blind and that of the sighted," he says. "The world of touch is pretty much the same for both groups."

He also found that the blind understood perspective, a skill usually thought to require sight. "When the blind drew a hand with two fingers crossed, they remembered to omit the 'hidden' lines. They even recognized the difficulty in presenting foreground and background. And they showed motion of a wheel by drawing bent spokes and having the gravel fly out behind."

In another phase of the study the blind felt the outlines of component parts of a subject — an elephant — first the trunk, then the tail, then a leg, until the picture was complete.

Although the evidence is not all in, Prof. Kennedy believes that "haptic pictures have meaning for the blind. The more representational devices we have for teaching the blind, the more ways they will have to communicate about their world."

Prof. Kennedy works with members of BOOST, a self-help group of perceptually handicapped people. He also provides material for children's books and hopes that one day a newspaper carrying both text and pictures will be available to the blind.

950 A.D. weather

subject of study by team of geographers



The site of the Vikings' first North American winter in 950 A.D. — L'Anse aux Meadows, a small fishing village in northeastern Newfoundland — is currently being investigated by geographer Anthony Davis, who is part of a team examining the terrain for clues to past weather and vegetation.

The bleak, wind-blown site was first reconnoitred in the sixties by Norwegian archaeologist, Helge Ingstad, who sailed up the coast from New England searching for "Vinland" as the site has been called through the years. "When Ingstad reached L'Anse aux Meadows and saw the outlines of what were once turf walls, he was convinced he had found the original settlement," says Professor Davis.

Ingstad's wife joined him the next year and for almost a decade they examined the ruins. To date eight house sites and one smithy have been excavated. Artefacts discovered there, which included a Norse spinning tool and a bronze cloak pin, were taken to Norway.

Last summer, sponsored by Parks Canada, Davis and a colleague, Prof. John Andrews of the Royal Ontario

Museum, and graduate student Sharon Hick examined the site for geographic clues that antedate human habitation. Nordic occupation, they say, may not have lasted longer than two or three years if the impermanence of the dwellings and artefacts can be used as an index; the supply of timber may not have been as great as the Greenlanders had hoped.

The U of T team hopes to return to the site next summer to try to reconstruct the post-glacial vegetative history of northern Newfoundland. "It's about 7,000 years since deglaciation and this area represents a transition zone between boreal forest and tundra," says the geographer. "We will take samples of peat and lake sediments for clues to the past."

At present, he says, there seems to be no clear-cut message about the weather of the past. But Prof. Davis does see L'Anse aux Meadows as being a significant landmark in Canadian geography — and so do officials of Parks Canada who are building a centre to offer hospitality to the growing numbers of visitors who now visit northern Newfoundland each summer.

Graduate Studies

report examining past, future of SGS continues from *Bulletin* of November 14

III.a Physical and Mathematical Sciences

Here we group astronomy, chemistry, computer science, geology, mathematics, and physics. In 1964 (except for computer science, which first registered students in that year), past policies of the National Research Council had furthered the development both of extensive research strength and of graduate work in these disciplines. From the 1964 base of 387, enrolment expanded to 608 in 1971 (computer science from 14 to 114). But in 1971, NRC's limitation of support to visa students took effect, and, although increasing numbers of Canadian students have partially offset decreases in visa students, enrolments have dropped back to 551 in 1976 (less than 50 percent above the level of 1964). The effect of limited support for visa students is shown by the fact that, in 1976, fewer than 10 percent of Ph.D. students were visa students. It is expected that enrolments will continue to decline: between 1975 and 1976, first enrolments in all programs declined by 24 percent (in doctoral programs, by 27 percent).

The quality of student is very high, as indicated by the fact that 48 percent of eligible Ph.D. students hold major external awards. The availability of teaching assistantships is good, and the presence of NRC and other grants averaging nearly \$18,000 per staff member which may be used in part for student support is very helpful. As a result, completion of Ph.D. programs on a full-time basis is the rule rather than the exception. Ph.D. students are 60 percent of the total, and supervision is intensive (1.2 supervisions per staff member), the thesis topic being usually closely related to the staff member's own research.

III.b Engineering

Engineering, like the physical sciences, had a relatively strong base in 1964, but expanded more rapidly in the sixties (351 in 1964 to 793 in 1971). This was in part due to expansion of the research-based Ph.D./M.A.Sc. programs, but was also influenced by the introduction of the professionally-oriented M.Eng. program in 1966, which by 1971 had grown to 194 students. Changes in government policy affecting the sciences, as noted above, hit engineering even more severely; Ph.D. enrolment dropped by 30 percent (247 to 174) from 1971 to 1976. Similarly, M.A.Sc. enrolment dropped by 17 percent (367 to 305). However, the growing M.Eng. program (331 students in 1976) resulted in total enrolment growing to 864 in 1976.

The net result has been a basic change in the orientation of graduate studies in engineering. M.Eng. students now outnumber M.A.Sc. students; in five of the seven engineering departments, part-time students outnumber full-time students. Only 20 percent of graduate students are at the Ph.D. level, and this is likely to decline further: between 1975 and 1976, first enrolments in Ph.D. programs dropped by a dramatic 55 percent. Current economic conditions have clearly reduced interest in research-based graduate work in engineering and it is hard to predict when this interest may revive.

The quality of Ph.D. students remains high, however, with 40 percent of those eligible holding major external awards. Visa students make up 12 percent of the

Ph.D. total, and are mostly supported by Canadian or foreign governmental programs. Supervision follows the pattern in the sciences and teaching assistantships and grants (averaging \$24,000 per staff member) provide adequate financial support. The crucial question is whether a pool of able young people sufficiently large to maintain programs at a level of critical mass will be available.

IV.a Life Sciences — basic sciences

This group includes botany, psychology, zoology, and most graduate departments in medicine, as well as two graduate institutes, namely Immunology and Medical Science. The characteristic of rapid expansion (221 in 1964 to 487 in 1971) is in evidence here also but distinctively this growth has been sustained (to 573 in 1976), and it appears that enrolment can be stably maintained, as first enrolments in program appear to be essentially constant. Ph.D. enrolment is about 40 percent of the total, and the students are able, 40 percent of those eligible holding external fellowships. Visa enrolment is about 11 percent of the Ph.D. total, and is concentrated in the "arts and science" departments. The character of individual supervision is generally intensive and similar to that in the physical sciences; the ratio of supervisions to staff members (0.6) is low, which may reflect either additional capacity for Ph.D. students, or, just as likely, heavy undergraduate and medical (i.e. non-SGS) postgraduate demands on graduate staff in medicine. Grant support is reasonable (average \$24,000 per member of the graduate faculty) and teaching assistantships in arts and science departments are reasonably available, although medicine has limited need (and therefore funds) for teaching assistants. We look forward to relative stability in this subdivision of the school.

IV.b Life Sciences — clinical and professional programs

Here we group together (perhaps not too logically) clinical biochemistry, community health, dentistry, forestry, nursing, nutrition and food science, and pharmacy. Except for nursing, which has no doctoral program, they do share the property of having small doctoral programs, both absolutely (average size 5 students) and relatively (17 percent of total graduate enrolment in the division, nursing excluded). Because of the commitment of the professional faculties in this group to sizable first-degree programs, the commitment of staff to doctoral programs is relatively low (0.5 supervisions per staff member, nursing again excluded). This group has experienced much the same growth pattern as the basic biological science grouping (from 72 students in 1964 to 228 in 1976, of which the master's program in nursing introduced in 1971 accounts for 50), and this enrolment is likely to be sustained. Grants and teaching assistantships across the group are adequate, although by no means evenly distributed. Only 2 of 24 eligible doctoral students hold major external awards; even when one discounts for the attitude of granting bodies towards professional programs, this figure is disappointingly low.

Graduate Centres and Institutes

Graduate centres and institutes with degree programs have been included in the analysis of divisions and departments just concluded. Not all centres and institutes have such programs, however. Moreover, the school has budgetary responsibility for the 17 graduate centres, institutes and programs and the one graduate department which come under its direct control. It is thus worthwhile to comment briefly on the centres and institutes.

The most highly developed units are those having both master's and Ph.D. programs, and independent authority to appoint staff. There are five of these: the Program in Comparative Literature, the Centre for the Study of Drama, the Institute for the History and Philosophy of Science and Technology, the Centre for Medieval Studies, and the Department of Urban and Regional Planning. While the first four units listed above bear a superficial resemblance to interdisciplinary "departments", they are not such departments. Few members of staff hold their appointments entirely within them (only 6 out of 26.9 FTE), the remainder being cross-appointed. Further, as the table below shows, student-staff ratios are unusual in the extreme.

Graduate Faculty and Students, 1976

	Graduate Faculty (FTE)	Graduate Students (FTE)	
		Ph.D.	M.A.
Comparative Literature	2.5	16.8	14.3
Drama	7.5	33.7	22.6
History of Science	5.1	15.5	9.2
Medieval Studies	11.5	81.4	24.6

In fact, three of these units function effectively only because staff in cognate departments, with status-only cross-appointments or as a result of informal agreements, contribute to the teaching and supervision of their students. The directors of these units, lacking the normal full authority of departmental chairmen over salaries and promotions, use other means of persuasion — in the above cases, the benefits of association with programs of high quality and the opportunity to work with very good students. Elitists are fortunately still with us. The Centre for Religious Studies, which began operation in 1976, is expected to evolve into this group.

Two other institutes — the Institute of Immunology and the Institute of Medical Science — have both M.Sc. and Ph.D. programs but do not have appointment authority. The budgeted academic staff of these two units amounts to 0.5, with total student registration (FTE) of 26.4 M.Sc. and 18.6 Ph.D. These units depend entirely on the dedication of staff with status-only cross-appointments, who value highly the exchange of research experience and the chance to work with first-class students.

A further two centres — the Centres for Criminology and for Industrial Relations — were founded in 1963 and 1964 respectively as research centres, but over the course of time have evolved to offer degree programs at the master's level. These centres, too, share in the "centre

phenomenon" — programs with the most modest budget resources. Criminology, with a budgeted staff of 4.87, mounts an M.A. program (30.5 FTE) as well as a popular (and populous) undergraduate program offered in conjunction with Woodsworth College; in addition, under an arrangement with the graduate departments of sociology and law, Ph.D. students in those departments are enabled to do research in the centre. Industrial Relations, which admitted its first students in 1976, has one budgeted staff appointment at present, and 24 students (10 full and 14 part-time). As the program grows to its expected steady state of 50 students (as it surely will with 125 applicants for 25 places in 1977) cross-appointments amounting to another FTE will be needed. Both centres of course continue as active foci for research projects.

There remain seven centres and institutes which do not offer degree programs. Five of these — the Institute of Applied Statistics, the Centre for Culture and Technology, the Institute for Environmental Studies, the Institute for Policy Analysis, and the Centre for Urban and Community Studies — are primarily foci of concentration for research in their various areas: two — Culture and Technology, and Environmental Studies —

offer limited graduate instruction as well. The Centre for Urban and Community Studies also links with the Joint Program in Transportation established with York University and thus has a programmatic role. The remaining two units — the Centres for International Studies and for Russian and East European Studies — have primarily a "fostering" role in encouraging interdisciplinary study and research in their areas of concern, the latter administering an interdisciplinary graduate diploma program that is inactive.

To complete a sketch of the shape of the centres and institutes, one must add two activities not administered through the school, but coming under its academic control. The Institute of Biomedical Engineering, first funded by the Faculties of Applied Science and Engineering and Medicine in 1961, offers both formal instruction and research opportunities to graduate students as well as being a major centre for research in the field: it does not as yet offer a degree program. The Environmental Engineering Program is a collaborative program mounted in 1977 by four graduate departments in engineering, with no specific resource allocation, to foster study and research of an interdisciplinary nature.

The Administration of the School

The 1965 Presidential Committee recommended that, in addition to the dean, the school have "an assistant dean with whom he can work closely and who can act as the dean's deputy when required" and four associate deans who "must be given some relief from teaching duties during their tenure of office". Since that time, the transfer of financial responsibility for all but one of the graduate centres and institutes to the school (1971) and the growing demands of the external system (COU, OCGS, ACAP, appraisal) and the University for information and for participation in their planning processes by the school have necessitated more help for the dean. From 1968 onward, an assistant to the dean was appointed and in 1967 the position of assistant dean carrying primarily administrative responsibility for the centres and institutes was established. In 1974, the position of vice-dean was established in response to planning demands, and in 1976 the position of assistant to the dean was discontinued. At present therefore there are three school deans — the dean, vice-dean, and assistant dean. Since all decanal appointments are now term appointments, each person holding such an appointment spends some time in departmental work: thus all decanal appointments are less than full-time (at least nominally). The nominal commitment of the three "school" deans in 1976 was about 2 FTE: the analogous 1968 commitment was the same.

Similarly, as the size and complexity of the school have increased, the demands on the four associate deans have made it necessary to provide a greater portion of released time: what was in 1968 a third-time appointment has become a half-time one. In Division II, this is only marginally adequate, even with the appointment of an additional divisional secretary to assist the associate dean with matters relating to the graduate Department of Education Theory.

As to administrative staff, the staff of 50 authorized in the 1968-69 budget has increased to 53.6 FTE in 1977-78. To hold staffing to this level in the face of



increasing student numbers, while at the same time providing a high standard of service to graduate students and departments, has been a challenging task: the school's move to computer-based record-keeping in 1975-76 is the most recent

evidence of an ongoing process of internal change designed to control cost and to improve service. The secretary of the school, and indeed her entire staff, deserve great credit for having accomplished these changes in a way which has heightened staff morale as well as improved service. The inexorable rise in the costs of external goods and services provides a continuing incentive to seeking further economies through organizational change.

The Quality of Graduate Programs

The foregoing description of the school does not directly deal with the crucial question: what is the quality of our graduate programs? In attempting to answer this question, we can draw on certain external information: ACAP assessments (virtually complete in the social and physical sciences, but only fragmentary in the humanities and the life sciences), on the results of appraisals for programs begun after 1967, and on quinquennial reviews of graduate centres in which external opinion has been sought. For intraprovincial comparisons, we may make use of the "macro-indicators" compiled by OCGS, although statistics are at best a poor measure of quality. We can also draw on internal experience — our perceptions of admission standards, of in-course standards, of departmental organization and commitment, and of standards for the Ph.D., all formed through day-to-day contacts between, in particular, the associate deans and the graduate departments.

In the University's brief on graduate planning presented to OCUA in June of 1976, it was stated that "the very first objective . . . for graduate education and research should be to maintain high standards of quality. The criteria for establishing high quality should exceed mere adequacy and should aim for excellence by national, and in some cases, by world standards". It is by these high standards we are therefore required to judge ourselves at the doctoral level.

It must be frankly admitted that not all our doctoral programs currently meet these standards nor live up to that internal sense of a school standard which is a crucial element in the ethos of this University. To achieve a national level of excellence takes both time and effort, and it is unlikely that a newly introduced program, no matter how promising, would attain this level in less than five to ten years. For these programs, the rate of progress toward the goal must be carefully watched, and the ten-year re-appraisal by OCGS regarded as the acid test. (Linguistics, the first of our programs to be appraised, is currently undergoing this re-appraisal.) The five-year review by OCGS will provide an earlier checkpoint: so far, six of our recently introduced doctoral programs have been subjected to this review. Five programs have been found to be developing satisfactorily. New enrolment in one field of the sixth has been suspended. Four programs have yet to undergo this review.

Rather than render a superficial judgement on each of our established programs, it is probably better to deal in terms of factors which we perceive as endangering quality. Most of our programs are of "national" quality, and several are clearly of "international" standard. But we have few reasons to be complacent about this.

We have reason to believe that enrolment levels in certain of the large humanities and social science departments are too high to be conducive to the achievement of the highest quality of studies having regard to the level of financial assistance available.

A major problem, noted in many ACAP assessments, is the excessive length of time taken to obtain the Ph.D. in many disciplines. Over the last three years, this has averaged 6.6 years in the humanities, 6.1 years in the basic social sciences, 4.4 years in the physical sciences, 4.7 years in engineering, and 5.0 years in the life sciences. (These are times from the master's degree.) In virtually every discipline the time to degree exceeds that at any other university in Ontario.

We may be inclined to reflect comfortably on the premise that our programs, being of the highest quality, naturally take longest to complete. Unfortunately, in the one area where we can make a judgement which is not superficial — in engineering, where ACAP assessments are complete and where two of us have considerable experience — the rank correlation between time to degree and perceived program quality for our seven programs is a somewhat startling 0.77. Thus, in engineering at least, our comforting premise turns out not to be a fact at all, but the reverse of one: there is good statistical reason to believe that the better the program, the less the time taken to complete it.

Our complacency having been somewhat rudely disturbed, we may seek for explanations that, while not comforting, at least do not strike too close to our academic heart. The problem is clearly related to financial support. If a student must support himself or herself by full-time employment while working on the dissertation, the problems are obvious — slow progress, and, indeed, often no progress and dropping out.

There is some truth in this argument. It goes some way towards explaining the difference in time between the humanities and social sciences and the physical and life sciences. (We do not mean to imply that these times should be the same.) It is given further credence by the fact that more generous provision for internal fellowship funds in recent years has resulted in a marked change in the fraction of doctoral students who are part-time (from 24 percent in 1975 to 18 percent in 1976). Unfortunately, this "fact" may not be one, either: an equally likely explanation of the drop in part-time numbers is that more students have reached the time limit and dropped out. Both are probably true to some extent.

Where, then, do we look further? Perhaps the problem is not a problem, but merely a decanal worry. But we believe, with the 1965 Laskin Committee, that "it is outrageous to expect any student to spend six or seven years after the bachelor's degree to obtain the Ph.D. degree", and, if the length of the master's degree is taken into account, the average is over seven years in the humanities and social sciences, and over six in the physical and life sciences where the master's degree usually takes more than one year to attain. And we believe that the root causes for this were correctly identified by that committee — unrealistic expectations for the Ph.D. thesis, and insufficiently close supervision — to which have since been added in some departments course work and comprehensive examination requirements of an

extent which external assessors have often described as excessive. We do produce many doctoral graduates of the highest quality; we also produce some whose intellectual vitality has been crushed by excessively long programs, and we waste too many by the way. While we would regard the three or four years from the bachelor's degree considered desirable by the 1965 committee as unrealistically short, we believe that closer definition and supervision of the Ph.D. thesis would both reduce the time taken to earn the degree and improve the quality of many of our graduates.

If decanal exhortation will not disturb our sense of self-satisfaction, the pressures of the external environment which are intensifying are likely to change the circumstances in which we proceed. A brief review of this environment is now given.



The External Environment

The period of massive growth in graduate studies, which is now over, was spurred by a peculiar conjunction of social and economic factors. Post-war economic expansion was accompanied by such symbolic technological events as sputniks, nuclear power plants and electronic digital computers. Burgeoning governments promoted policies of massive social services in health, education and welfare, and society became more participatory at least in aspiration. Indeed there developed a widely held expectation that knowledge attained through massively extended education would impel economic growth, provide career pathways to success for citizens and solve the key problems of society to boot. Our present system of fifteen provincial universities offering some 250 doctoral programs is one institutional legacy of the political commitments of the past two decades. If we in the universities did not endorse public expectations of mass education particularly in graduate studies, we left them relatively unchallenged. Today in the face of brutal unemployment, inflation, the energy crisis, the growing understanding of the threat of human activity to the natural environment and to man himself, the decline in our national capacity to compete in international markets and of the crisis of national stability, roseate expectations have been replaced by gloom and the public priority particularly for graduate studies has plummeted at both the federal and provincial levels. Indeed, it is a time for a steady far-sighted view of what we are about.

To be concluded in next week's Bulletin

Research News

Research on modern East Asia

The U of T — York University Joint Centre on Modern East Asia supports faculty and doctoral research grants for research on Japan, Korea, China, Hong Kong, and Macao "in all areas of domestic and international relations, cultural and other institutional life". Special consideration will be given to projects centring on Canadian relations with any of these geographical areas after 1800. Applications from members of any Canadian academic institution are reviewed quarterly with the next deadline falling on December 1. Two spring term deadlines are February 1 and April 1.

Application forms and additional information may be requested from the joint centre at 14-213 Robarts Library, telephone 978-6820.

von Humboldt Foundation Research Fellowships

The Alexander von Humboldt Foundation of Bonn-Bad Godesberg, West Germany, offers 400 annual postdoctoral research fellowships for non-Germans younger than 40 years of age.

The fellowships are tenable at German institutions, but up to four months of the fellowship period may be spent at any research institute in Europe if it is essential

First Convocation ceremony Nov. 30

The Chancellor, Dr. Arthur B.B. Moore, will be installed at the Convocation to be held Wednesday, Nov. 30 at 8.15 p.m., the first of three ceremonies this fall. On this occasion, Dr. Moore will deliver the convocation address. Undergraduate degrees in arts and science from the St. George colleges will be conferred, and diplomas and certificates awarded.

Thursday, Dec. 1 at 8.15 p.m., Convocation will be held for the conferring of undergraduate arts and science degrees from Scarborough and Erindale; the conferring of graduate, first professional and undergraduate degrees in the sciences, health sciences and music; and the awarding of diplomas and certificates. Professor H.C. Eastman, Vice-President Research and Planning, will address the graduates.

Friday, Dec. 2 at 8.15 p.m., an honorary degree and graduate degrees will be conferred. The honorary graduate will be Professor Paul Ricoeur, distinguished philosopher of language, brilliant critic and outstanding theologian. Dr. Ricoeur will deliver the convocation address.

A reception for graduates, their families and friends will be held in Hart House following their Convocation.

The Dismissal

The Dismissal, James Reaney's new play, is set in the academic year 1895 and deals with three University firsts. James Tucker, outspoken editor of the *Varsity*, was the first student to be expelled from classes; William Dale was the first professor to be fired from the University; and the undergraduate revolt in support of Tucker and Dale was the first strike in North America.

The ringleader of the student revolt was William Lyon MacKenzie King.

The Dismissal is the last play in the Sesqui Season, and was produced by the NDWT Company, which also produced Reaney's *The Donnelly's Trilogy*. It can be seen at Hart House Theatre until Dec. 3.

for the progress of the research project. Applicants must be highly qualified as demonstrated by publications and/or scientific achievements, but no special quotas are fixed for either nations or disciplines in determining the selections for fellowships awarded. Fellowship stipends are awarded at rates between 1600 DM and 2200 DM per month for 6 to 12 month periods, with possible renewals to 24 months. Travel costs, family allowances, and support for language courses may also be supported.

Applicants are advised to contact the German institutions at which they wish to work in advance of submitting applications. Applications may be submitted at any time, selections are normally made in March, July, and November.

For further information, call 978-2163.

PhD Orals

Since it is sometimes necessary to change the date or time of an oral examination, please confirm the information given in these listings with the Ph.D. oral office, telephone 978-5258.

Thursday, November 24

Tilottama Rajan, Department of English, "Dark Interpreter: The Image of Art in Romantic Poetry." Thesis supervisor: Prof. M.T. Wilson. Room 111, 63 St. George Street, 2.30 p.m.

Monday, November 28

Gregory Joseph John Kovacs, Department of Physics, "Optical Excitation of Resonant Electromagnetic Oscillations in Thin Films." Thesis supervisor: Prof. G.D. Scott, Room 309, 63 St. George Street, 2 p.m.

Friday, December 2

Allen R. Guenther, Department of Near Eastern Studies, "A Diachronic Study of Biblical Hebrew Prose Syntax." Thesis supervisor: Prof. E.J. Revell. Room 111, 63 St. George Street, 3 p.m.

Tuesday, December 6

Christopher Edward McGee, Department of English, "A Critical Edition of the First Provincial Progress of Henry VII." Thesis supervisor: Prof. J. Meagher. Room 111, 63 St. George Street, 2 p.m.

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Universities and Colleges
CREDIT UNION

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Forum

Missing lectern irreplaceable

Regarding the disappearance of the Convocation Hall lectern — it was hoped that it was a prank and that it would be returned but unfortunately this has not happened. Possibly those responsible are not aware of the historical value that is placed on the lectern and did not take the time to read the brass plaque that is attached to the matching table. The lectern is part of a set of carved chairs and a table that were presented to the University in 1908 by Irving Earle Robertson, B.A. Oxon and an alumnus of the University of Toronto. It was made from English oak 800 years old which came from Barby Church in Northamptonshire, England, of which the donor's great-great-grandfather was vicar from

1794 to 1813. The lectern has the University crest carved into the front panel and because of its age should be handled with care and respect. The lectern has been used at convocations and by many distinguished guest lecturers for nearly 70 years and could not be reproduced today.

Could you publish an appeal to anyone who may have any knowledge of its whereabouts to telephone 978-2331? Arrangements will be made to collect it with no questions asked.

W.K. Lye
Director
Physical Plant

Michael Polanyi memorial fund

We are writing to invite *Bulletin* readers to contribute to a fund established in memory of Michael Polanyi — a man whose work has touched a goodly number of us. The Michael Polanyi Memorial Fund is for the purpose of awarding an annual philosophy prize to a student in the University of Manchester.

Contributions may be sent to the

Hon. Treasurer, (Sir Leslie Kirkley),
The Michael Polanyi Memorial Fund,
25 Chapel Close, Oxford OX2 7LA,
United Kingdom.

T.A. Goudge
G.B. Payzant
J.M. Ham

Governing Council Continued from Page 1

sors' positions for fiscal reasons, though such policies do prevail at many American universities, Kraemer's amendment was passed.

Bliss not one to give up

Vice-chairman Sydney Hermant described teaching staff member Michael Bliss as "of course, a bit of a pixie", in disagreeing with Bliss's one-man crusade to dissuade the council from recognizing the Association for Part-time Undergraduate Students and the Graduate Students' Union. Once again, as at the subcommittee, committee, and Executive Committee levels, Professor Bliss's plea that the motion be turned back "because we have, in fact, no policy for governing student societies" was voted down. Vice-President, Internal Affairs, Frank Iacobucci concurred with the decision, noting that recognition of the two student societies was not so much a legal, as a symbolic gesture.

In his report to the council, the President announced that Gordon Kushner will be appointed temporary head of the Royal Conservatory of Music, commencing January 1, 1978 and until a successor is found.

"There are real uncertainties about the relationship between the Conservatory and the Faculty of Music," Dr. Evans said, some of which stem from difficulties

in obtaining funding from the Ministry of Colleges and Universities for the Conservatory, the bulk of whose students are not at the post-secondary level. Obtaining funds from the Ministry of Recreation is a possibility, but might lead to a change in the relationship with the faculty.

The President announced the appointment of Harald Bohne as director of University of Toronto Press, to take effect as soon as approved by the council and to be served "without term".

In discussing government funding, Dr. Evans forecast a 4.6 percent increase in the University's basic operating income for 1978-79, and said that it can be inferred that a similar level of funding will be the pattern for the next three or four years.

One of the last items of business was approval of the second annual report of the University Ombudsman, portions of which will appear in a subsequent issue of the *Bulletin*. One indication of the credibility of the Ombudsman's office, the report states, "is the increasing number of academic and administrative officials at various levels who have contacted the office for opinions or advice about actions they proposed to take in the course of their duties".

The Governing Council next meets on December 15.

Governing Council — November 17 (including action taken at committee level)

- Approved appointment of Harald Bohne as director, University of Toronto Press
- Approved budget guidelines for 1978-79
- Approved further amendments to Policy and Procedures on Academic Appointments
- Approved recognition of the Association for Part-time Undergraduate Students and the Graduate Students' Union
- Approved University of Toronto fire protection policy
- Received report of the Ombudsman for year ended September 30, 1977
- Approved audited financial statements for year ended April 30, 1977 for Royal Conservatory of Music of Toronto, Update Fund and Connaught Fund.

While professors publish editors perish bringing order to prose chaos



Tom Davey, a consultant to the Institute for Environmental Studies, and editor of the *IES Bulletin*, recently published these guidelines for professorial writing, based on his editing of reports and proceedings for *IES* and *Environment Canada*.

Illustration from *The Unstrung Harp* by Edward Gorey

Lord Byron said that when he died the word *Italy* would be found etched upon his heart, while novelist Upton Sinclair said that *social justice* would be inscribed on his.

When it comes to my turn to shuffle off this mortal coil, the words *symposium proceedings* will be clearly discernible on the wreckage of my cardiovascular system. As I have willed my body to medical research, written proof of my speculation might be uncovered as some young student plies his trade on my cadaver, the writing in this case being on the ventricular walls.

The problem in editing and publishing learned journals or studies is compounded by a world-wide academic tendency to tenaciously cling to a brand of individuality that ignores accepted procedural norms. Thus, instead of having one editorial style for abstracts, papers and references, several score evolve, all of which must be laboriously reconstituted into some semblance of consistency.

The solution would involve no sacrifice of intellectual virtuosity nor lack of academic individuality. The guidelines for most publishing ventures have enough latitude for self-expression to suit even the most active intellectual gymnast. But papers are often late or incomplete and editors' entreaties frequently ignored. Dealing with learned authors can be a combination of watch-making and baby-sitting. Some papers, ironically on precise and highly complex subjects, are handled in a careless manner that borders on semantic anarchy.

How is it that some of the great minds of our time, some leaders in their field, who have justly earned the respect of their peers across the world, can turn in sloppy, often incomplete papers which would invoke wrath in a high school?

Brilliant minds, which effortlessly handle complex logistical, zoological and ecological problems can often founder on mundane office procedures.

I suspect that several promising young forests have been needlessly sacrificed to make paper for the memoranda which go out from various academic offices, vainly trying to bring order to chaos.

The problem is not confined to any particular university. Experience shows

that the malady is endemic and equally distributed on a global basis. People from commercial firms such as consulting engineers, as well as scientists in government agencies, apparently took the virus with them, along with their degrees.

Then there are the omissions. There are papers without abstracts; there are abstracts without papers. There are papers without titles, and there are even titles without papers. This is a new biological phenomenon. We have all heard of children without fathers — now we apparently have fathers without children. These titles float in an academic limbo, waiting to encounter intellectual ova from which, after conception, will grow fully fledged papers.

Sometimes the loss is exacerbated by the brilliance of the defaulting authors who, unpublished, become the mute, inglorious Miltons of science.

Which brings us up to deadlines — broken ones. Long after scientific conferences, it is not uncommon to find papers still unwritten. There are many cases where even a nine months' time span has not even produced what abortionists call a viable fetus.

If environmental scientists really wish to promulgate their research findings and thus substantially accelerate remedial measures, they can make a quantum leap forward by simply averting their gaze from the stars for a while and focusing their attention on humdrum, but efficient, publishing procedures.

With environmental crises becoming ever more frequent and significantly more serious, a lot of us may perish if less scientists publish.

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Sesqui Events

Monday November 21

In the High Yemen Today, illustrated lecture.

Prof. A.M. Watson, Department of Political Economy. 14-081 Robarts Library. 12.10 p.m. (Middle East & Islamic Studies) (Those wishing to bring lunch are welcome to do so.)

Baroque Trumpet and Organ Literature from an Historical Perspective, lecture demonstration.

Edward Tarr, baroque trumpeter and George Kent, organist. Walter Hall, Edward Johnson Building. 5 to 7 p.m. (Graduate Music and City Waits Toronto)

Participatory Development Projects in Africa: Lessons from Experience, seminar. Idrian Resnick, Economic Development Bureau, New York. Upper Library, Massey College. 12 noon. (African Studies Committee CIS)

F.R. Scott's Lakeshore: A Reading, sixth in series of eight lunchtime seminars, *Canadian Literature and Culture*. Prof. Germaine Warkentin, Department of English. 321 Pratt Library. 1.15 p.m.

Janet MacFarlane, organist, and *Harry Maude*, bass, third in series of four *Fall Organ Recitals*. Convocation Hall. 5.05 p.m. Admission \$1 at door.

The Dismissal, new play by James Reaney, last in HHT Sesquiseason. Produced by NDWT Company. Hart House Theatre to Dec. 3, Monday to Saturday at 8.30 p.m.; matinees Wednesday at 1.30 p.m. and Saturday at 2.30 p.m. Tickets \$6, students \$3; matinees \$4.50, students \$3. Telephone 978-8668.

Tuesday 22

Bilingualism: The Nonpolitical Issues, fourth of five lectures, *The Sesquicentennial: Confronting the Future*. Prof. Merrill Swain, Psycholinguistics, OISE. Auditorium, Medical Sciences Building. 12.15 p.m. (Continuing Studies)

Membrane-Associated Regulation of Cell Growth and Differentiation, lecture. Dr. Gerald Price, Department of Medical Biophysics, Princess Margaret Hospital. 235 FitzGerald Building. 3.30 p.m. (Microbiology & Parasitology)

Interpolation of Operators, lecture. Prof. Colin Bennet, McMaster University. 2117 Sidney Smith Hall. 4.10 p.m. (Mathematics and SGS)

Coleridge: Some Perspectives, the 1977 *Alexander Lectures*. Dr. Kathleen Coburn, Professor Emeritus, Victoria College. West Hall, University College. Nov. 22, 23 and 24 at 4.30 p.m.

An evening with Tony Ceta — The J.F.K. Assassination Story, lecture. 2074 South Building, Erindale College. 7.30 p.m. Admission limited to first 250. Tickets \$2.50, students \$2.

Stained Glass, last in series of seven lectures providing background for *A Gather of Glass*. Rob Watt, Vancouver Centennial Museum. Theatre, ROM. 7.30 p.m.

Genetics and the Future of Man, last program in Sesquicentennial series *Towards 2077*.

Dr. Louis Siminovitch, Department of Medical Genetics; Prof. Abbyann Lynch, Department of Philosophy; Prof. E.J. Reed, Toronto School of Theology; and the Hon. Mr. Justice E.P. Hartt, Supreme Court of Ontario. Chairman, Prof. R.B. Salter, Department of Surgery. Auditorium, Medical Sciences Building. 8 p.m.

The Functioning of the International Astronomical Union, colloquium.

Dr. Edith A. Muller, International Astronomical Union, Geneva. David Dunlap Observatory. 4 p.m.

Information Systems, Technology and Society — Directions for the Future, last of Sesquicentennial seminars in series *Industrial Engineering for the Future*. Dr. Josef Kates, Science Council of Canada. 202 McLennan Physical Laboratories. 4 p.m.

A Proposed Study of Surgical Workloads, seminar.

Drs. George McCracken and Eugene Vayda, Department of Health Administration. 4171 Medical Sciences Building. 4 p.m.

Lee Ryan, soprano, afternoon classical concert. Music Room, Hart House. 1.10 p.m.

Gary Morgan Sextet, fifth in series of concerts *Jazz at the Museum*. Armour Court, ROM. 5.30 p.m.

Hart House Chorus, conductor *Denise Narcisse-Mair*. Concert includes works both *a capella* and accompanied by organ. St. Paul's Church, Bloor St. East and Jarvis. 8 p.m.

A Man for All Seasons, film. S-319 Scarborough College at 3 p.m. Film will also be shown Thursday 24 in H-216 Scarborough College at 5 p.m.

Wednesday 23

Incentives for Intensive Forest Management in Canada, first of two 1977 *Weyerhaeuser Lectures*. Glen A. Patterson, Canadian Forest Products Ltd., Vancouver. Fourth floor lounge, 203 College St. 12 noon (Forestry & Landscape Architecture)

Origins of Consciousness, colloquium. Prof. Julian Jaynes, Princeton University. 2117 Sidney Smith Hall. 4 p.m. (Psychology and SGS)

Sam Noto Quartet, Wednesday afternoon pop jazz concert. East Common Room, Hart House. 12 noon.

Two Flutes and Piano, noon hour recital. Margot Rydall, Peg Rannem and Andy Markow. Concert Hall, Royal Conservatory of Music. 12.15 p.m.

Thursday 24

The Tropics — Century 21 Wood Supply? second of two 1977 *Weyerhaeuser Lectures*.

Dr. Norman E. Johnson, Weyerhaeuser (Far East) Ltd., Jakarta. Auditorium, Medical Sciences Building. 12 noon. (Forestry & Landscape Architecture)

Foundations of Micro and Macro Economics, lecture. Prof. Robert Clower, University of California at Los Angeles and University of Western Ontario. Coach House Conference Room, Institute for Policy Analysis. 2 to 4 p.m. (Political Economy and SGS)

Studies of Insect Migration with Special Reference to the Monarch Butterfly, lecture. Dr. Fred A. Urquhart, Professor Emeritus. S-309 Scarborough College. 8 p.m.

Accident Investigation, safety seminar. 4049 Robarts Library. 3 to 4.30 p.m.

Nucleation Phenomena, seminar. Prof. Charles Ward, Department of Mechanical Engineering. 252 Mechanical Building. 3.10 p.m.

Nuclear Wastes, environmental seminar. Prof. F. Kenneth Hare, Institute for Environmental Studies. 211 Haultain Building. 4 p.m.

Current issues of contemporary literary theory, sixth of a series of 14 special seminars. Prof. Fredric Jameson, Yale University.

Croft Chapter House. 4 p.m. For details telephone 978-6363. (Comparative Literature)

Quantitative Studies in Boreal Forest Vegetation, biology seminar.

Prof. Terry Carlton, Department of Botany. 2082 South Building, Erindale College. 5.15 p.m.

Wholistic Approach to Nutrition — I can't believe you're eating the whole thing, talk.

Confessions of a former health food addict, Robin Newman. Pendarves Room, International Student Centre. 12.15 p.m. (Integrity Group)

Landscape, HH library evening. Gay Allision and members of the Women's Poeting Collective discuss their collection of poetry. Library, Hart House. 8 p.m.

Collegium Musicum, director *Greta Kraus*, recital. Walter Hall, Edward Johnson Building. 2.10 p.m.

The Drive of Power, film in series *Ascent of Man*.

Political and industrial revolutions in the 18th century. H-308 Scarborough College. Two screenings, 12 noon and 5 p.m.

The Pursuit of Happiness, seventh of 13 colour films, *Civilization* series. The music of Bach, Handel, Haydn and Mozart and the way some of its qualities are reflected in rococo architecture. Art Gallery, Hart House. Two screenings, 12 noon and 7 p.m.

Miss Julie, Strindberg. Erindale College Student Theatre Group, directed by J. Wayne Spriggs. Erindale College Studio Theatre, Nov. 24 to 26 at 8.30 p.m., matinee Nov. 25 at 2.10 p.m. Tickets \$2. Telephone 828-5349.

Retrospective Exhibition of Senior Design Projects and Gull Lake and Dorset Sketches, Architecture Sesquicentennial exhibition.

Projects by former students trace changing attitudes to architectural design and techniques of presentation over past 50 years; sketches made by students of villages and countryside around Gull Lake in 1930's and Dorset from 1947 to 1967. Galleries, School of Architecture to Dec. 16. Gallery hours 9 a.m. to 9 p.m. weekdays only.

Friday 25

Classical Hatha Yoga, lecture demonstration.

Axel Molema, instructor, Hart House yoga classes, with intermediate and advanced students. Innis Town Hall. 7.30 p.m. Admission \$2, Yoga Club members \$1.

Some Recent Advances in Polypyrazolyl-borate Chemistry, colloquium.

Dr. S. Trofimenko, E.I. du Pont de Nemours and Co. 158 Lash Miller Chemical Laboratories. 4 p.m.

Resonance Refractivity for Improved Flow Visualization, aerospace seminar.

Prof. Daniel Bershader, Stanford University. Main lecture hall, Institute for Aerospace Studies. 2 p.m. (CRESS-York University and UTIAS)

The Stoic Concept of Detachment, seminar. Prof. J.M. Rist, Department of Classics. 144 University College. 3.10 p.m. (Graduate Classics)

William Aide, piano recital. Program includes Scarlatti, Mozart, Chopin and Liszt. First of two exchange concerts with the Faculty of Music, University of Western Ontario. Walter Hall, Edward Johnson Building. 8.30 p.m.

Sunday 27
Technology — A Mirror of Social Change, eighth of fall series of special Sesqui-

centennial lectures at Science Centre.

Prof. John Abrams, Department of Industrial Engineering and Institute for the History & Philosophy of Science & Technology. Main auditorium, Ontario Science Centre. 3 p.m.

The Galliard Ensemble with guest Bibi Caspari, first of four Erindale In Concert series.

Afternoon of music, mime and dance. Meeting Place, South Building, Erindale College. 2.30 p.m. Tickets series \$7.50, students and senior citizens \$6; single \$2.75, students and senior citizens \$2.25. Information 828-5214.

Sun Pictures and Famous Men and Fair Women, films. Films about photography. Theatre, ROM. 7.30 p.m.

Monday 28

Art Collecting in 18th Century Paris — The Choiseul Gold Box, lecture. Sir Francis Watson, former director Wallace collection. 2172 Medical Sciences Building. 8 p.m.

How to Read Donald Duck: The Rhetoric of Popular Culture, seventh in series of eight lunchtime seminars, *Canadian Literature and Culture*.

Prof. Mark Freiman, Department of English. 321 Pratt Library. 1.15 p.m.

Elizabeth Gallimore, organist, assisted by the choir of Calvin Presbyterian Church and instrumental ensemble, last in series of four *Fall Organ Recitals*. Convocation Hall. 5.05 p.m. Admission \$1 at door.

Tuesday 29

The Future Economic Outlook, last of series of five lectures, *The Sesquicentennial: Confronting the Future*. Prof. Eric Kirzner, Department of Political Economy. Auditorium, Medical Sciences Building. 12.15 p.m. (Continuing Studies)

Locks from Iran, exhibition. Padlocks in ancient Persia served a variety of symbolic purposes, some of which still obtain, and the locks became works of art. Those in the display range from tiny to massive, functional to decorative, ingenious mechanisms by which they work are also explained. Display circulated by the Smithsonian Institution. Third floor rotunda, ROM, to Dec. 11.

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